GRIP DC8
Microphysical Observations

Andrew Heymsfield and Aaron Bansemer, NCAR
Yaitza Luna-Cruz, Howard University
### NCAR Microphysics Probes

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Measurement</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud Aerosol Spec.</td>
<td>Small Particles</td>
<td>0.6-50 microns</td>
</tr>
<tr>
<td>Cloud Droplet Probe</td>
<td>Small Particles</td>
<td>3-50 microns</td>
</tr>
<tr>
<td>Cloud Imaging Probe</td>
<td>Large Particles/2D shape</td>
<td>50-1500 microns</td>
</tr>
<tr>
<td>Precip. Imaging Probe</td>
<td>Large Particles/2D shape</td>
<td>100 microns-2.75 cm (*)</td>
</tr>
<tr>
<td>Rosemount Icing Probe</td>
<td>Supercooled Liquid Water</td>
<td>-1 to +5 Volts</td>
</tr>
<tr>
<td>Cloud Spec. and Counterflow Impactor</td>
<td>Small Particles, Condensed water content</td>
<td>0.6-50 microns 0.01-2 g/m3</td>
</tr>
</tbody>
</table>
0922010 184700. Buffer width = 860 microns.

Project: GRIP  Probe: DIPC  Resolution: 15 microns

This image represents one minute of flight time.
GRIP Ice Water Contents

(a) IWC vs Temperature

(b) Freq. of IWC Occurrence

# Occurrences

IWC (g m⁻³)

T (°C)
a: GRIP Cond. Water Contents, Large Part.

b: GRIP Cond. Water Contents, All Part.
Summary and Conclusions

• Excellent, reliable data set (CDP, RICE)
• Data Archived at
• Also, on the GRIP website
• We seek collaboration with other GRIP investigators